PM SF 1.10.2 v.1

ROUTING AND TRANSMITTAL SLIP

Date 10/3/86

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1. Bob Kievit		
2. WOO		
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U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

OCT 0 2 1986

REPLY TO
ATTN OF: M/S 525

Gary Krutchfield
City Manager
P.O. Box 293
Pasco, Washington 99301

Dear Mr. Krutchfield:

The purpose of this letter is to describe the results of a study conducted by the Environmental Protection Agency (EPA) at the Pasco Sanitary Landfill. The study does not show any immediate environmental or public health problem; it does, however, indicate that there is groundwater contamination which must be closely monitored and evaluated for long term effects.

The EPA study focused on sections of the landfill where herbicide wastes were previously disposed of by the Resource Recovery Corporation. EPA was concerned that the herbicides may have been moving off-site.

The EPA study results indicate that while herbicides are not moving off-site, other organic compounds have contaminated the groundwater and have the potential for moving off-site. EPA plans to sample drinking water wells that are downgradient and within one mile of the landfill to be certain there is no immediate public health threat.

The Benton-Franklin County Health District and the Department of Ecology are responsible for management and oversight of the landfill. The two agencies are reviewing the current operations at the landfill in order to reissue the landfill operating permit. More stringent operating parameters are likely to be placed in the permit.

Finally, you should be aware that in cases such as this, EPA routinely compares the potential health risks posed by this site to the risks at other sites. EPA uses a mathematical model to score and evaluate potential risks. Sites with high enough scores are considered for placement on EPA's National Priority List (NPL) of hazardous waste sites. Sites on the NPL are eligible for funds under the Superfund program to fully investigate pollutants at and around the site and to undertake cleanup actions if necessary.

Thank you for your attention to this important matter. The enclosed fact sheets more fully describe the EPA study. If you have further questions, please contact me or Lori Cohen of my staff at (206) 442-2712.

Sincerely,

For Robert G. Courson, Chief
Superfund Branch

Enclosures

cc: Max Bigby
Stan Vendetti
Flora Goldstein
Bob Kievit
Larry Dietrich

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

OCT 0 2 1986

REPLY TO
ATTN OF: M/S 525

Bruce Whitemarsh, Chairman
Board of Franklin County Commissioners
5409 W. Henry
Pasco, Washington 99301

Dear Mr. Whitemarsh:

The purpose of this letter is to describe the results of a study conducted by the Environmental Protection Agency (EPA) at the Pasco Sanitary Landfill. The study does not show any immediate environmental or public health problem; it does, however, indicate that there is groundwater contamination which must be closely monitored and evaluated for long term effects.

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Sincerely,

Philip S. Millam

For Robert G. Courson, Chief
Superfund Branch

Enclosures

cc: C.J. Rabideau
Flora Goldstein
Bob Kievit
Gary Karndfski
Stan Vendetti
Bob Boothe
Bruce Gilkeson
Larry Dietrich

October 2, 1986

EPA

ENVIRONMENTAL STUDY FINDINGS

PASCO SANITARY LANDFILL

WHAT WAS THE PURPOSE OF THE STUDY?

The Environmental Protection Agency (EPA) conducted a study at the Pasco Sanitary Landfill, Pasco, Washington. The purpose of the study was to determine if herbicide wastes had migrated off-site. These wastes were buried in five sections of the landfill that were previously owned and operated by the Resource Recovery Corporation (RRC). In these sections of the landfill, the RRC received and disposed of industrial waste materials that are now classified as hazardous wastes, including herbicide wastes. EPA was concerned because herbicide wastes are sometimes contaminated with low levels of dioxin, a chemical that is acutely toxic to aquatic life and that may have health implications for humans.

HOW WAS THE STUDY DONE?

EPA took 18 composite soil samples and 15 groundwater samples downgradient of the industrial waste disposal areas where migration was most likely to occur. The soil and groundwater samples were analyzed for EPA's list of hazardous substances, including the herbicides of concern. Field work was completed in the summer of 1985. The map on page 3 shows the location of the disposal areas and the sampling locations. The study was carried out with the full cooperation of the current owner and operator of the landfill.

WHAT WERE THE STUDY FINDINGS?

From this investigation, EPA found no evidence of herbicide waste migration from the disposal areas. The lack of herbicide waste migration also means that dioxin contamination is not likely to be a problem at this site. Several other chemical compounds were detected outside the disposal areas (see below). However, EPA does not believe that these compounds pose an immediate threat to human health or the environment.

As would be expected in a landfill, several organic and inorganic compounds were detected in the soils and groundwater near the industrial wastes disposal areas. The main route of possible human exposure to the chemicals is through groundwater. The following therefore summarizes EPA findings regarding groundwater in the area.

The groundwater at the landfill was encountered at 40-77 feet below the land surface. It flows in a southwesterly direction.

No herbicide wastes were detected in the groundwater, but several other organic compounds were found. The most significant levels found were for trichloroethylene and tetrachloroethylene which were found in concentrations above EPA's current drinking water guidelines.

DOES THIS STUDY MEAN THERE IS A PROBLEM?

This data indicates that groundwater in the vicinity of the landfill is contaminated and should be monitored closely. There are several drinking water wells downgradient of the site and within one mile of the site. To be certain there is no health threat, EPA will be sampling these wells in the next month to determine if the wells are contaminated.

Other wells in the area are used for irrigation. EPA will test nearby irrigation wells to see if these compounds pose a problem for irrigation. If these compounds did reach the irrigation wells, they are likely to volatilize during the spraying and then undergo airborne photo-decomposition.

In sum, EPA sees no immediate concerns for public health or the environment at this site. In cases such as this, EPA routinely compares the potential health risks posed by the site to risks at other sites. EPA uses a mathematical model Hazard Ranking System to score and evaluate potential risks. Sites with high enough scores are considered for placement on EPA's National Priority List (NPL). Sites on this list are eligible for funds under the Superfund program to fully examine pollutants at and around the site and to undertake cleanup actions if necessary.

WHAT WILL HAPPEN NEXT AT THE LANDFILL?

The site continues to operate as a municipal landfill according to the Department of Ecology regulations. Monitoring and permitting of this site is in the jurisdiction of Ecology and the county health department.

Based on study findings, EPA recommended that the agencies consider the following recommendations in the management and oversight of the landfill:

1. Re-cover with soil all areas where erosion or site activities have exposed the plastic liner to preserve liner integrity.

2. Re-sampling and re-analysis of samples from each of the on-site monitoring wells and several of the surrounding irrigation wells in order to explain the variations in the concentrations of inorganic compounds.

3. Continue to sample groundwater twice a year to detect any on-set of migration from each burial zone and to monitor the area of known contamination.

4. If herbicide or herbicide waste materials are detected by future monitoring, the potential for dioxin contamination exists. Migration of the material should then be evaluated.

According to representatives of the Department of Ecology and the county health department, the agencies are considering the EPA findings and recommendations to reissue the landfill operating permit. More stringent operating conditions will be placed on the landfill.

Finally, as mentioned above, EPA will be sampling nearby drinking water wells to ensure there is no health threat from these wells. This sampling will take place in October 1986.

QUESTIONS? Please call the following people for more information:

Lori Cohen, EPA, (206) 442-2712, or

Stan Vendetti, Benton-Franklin County Health District, (509) 943-2614

Location of Environmental Study